

CDC's Role in Cytology Proficiency Testing

An update

CDC's Activities

- cooperative agreement developed three computer PT programs
- contract evaluated glass and computer PT against work performance
- department developed a computer-based PT program

Public Law 100-578

“periodic confirmation and evaluation of the proficiency of individuals involved in screening or interpreting cytological preparations, including announced and unannounced on-site proficiency testing of such individuals to take place to the extent practicable under normal working conditions.”

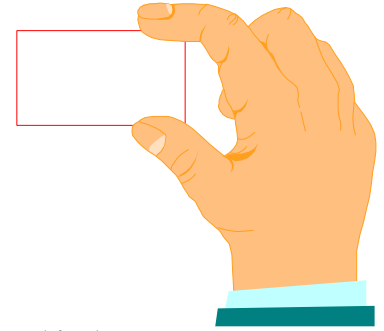
October 31, 1988

CLIA Regulations

- annual test is examination of 10 glass slide test set in 2 hours
- laboratory ensures that individuals are tested annually

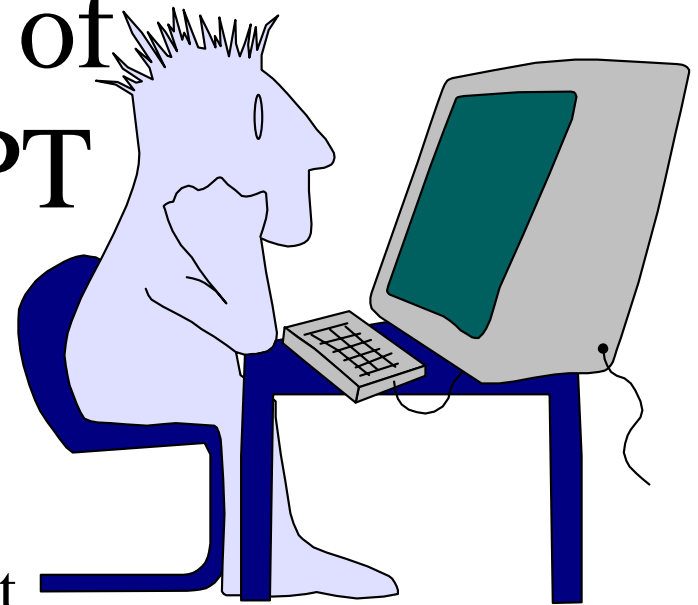
Because of statutory requirement for “normal working conditions” the current regulations specifies glass slides.

Limitations of Glass Slides



- unable to collect the sufficient number of glass slides
- difficult to standardize tests
- prohibitive cost and resources needed to reference slides

Advantages of Computer PT

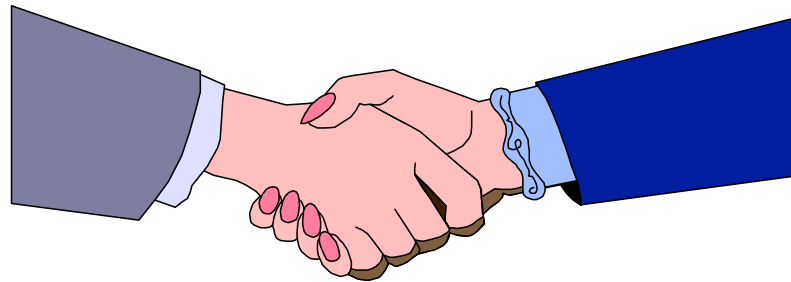


- fewer slides needed for a national test
- easier to standardize tests
- images do not fade or deteriorate

Cooperative Agreement

- American Society of Clinical Pathologists
- New England Medical Center
- Thomas Jefferson University

Purpose of Cooperative Agreement



- encourage development of computer PT
- evaluate the acceptability of computer PT

Cooperative Agreement Response to Evaluation

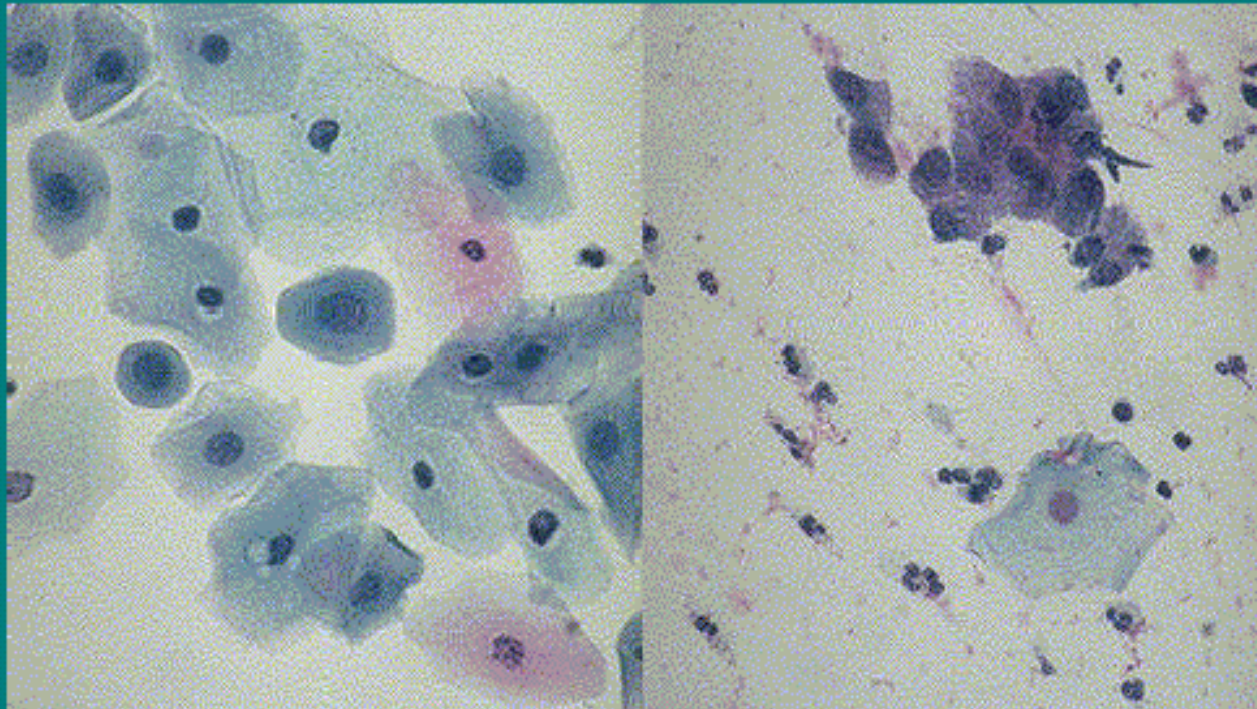
N = 155 (23 pathologists and
132 cytotechnologists)

- 68% liked taking a computer PT
- 92% adequate time frame for test
- 43% selection of cells appropriate
- 39% quality of images adequate

Cooperative Agreement Results

	Pass Computer PT	Fail Computer PT	Totals
Pass Glass PT	39	19	58
Fail Glass PT	12	6	18
Totals	51	25	76

These cells observed in a cervical sample from a 47-year-old woman on day 22 of her menstrual cycle should be classified as:



- ☐ 1) unsatisfactory
- ☐ 2) normal/infectious/repair
- ☐ 3) LSIL
- ☐ 4) HSIL

Stop

Time

Help

Review

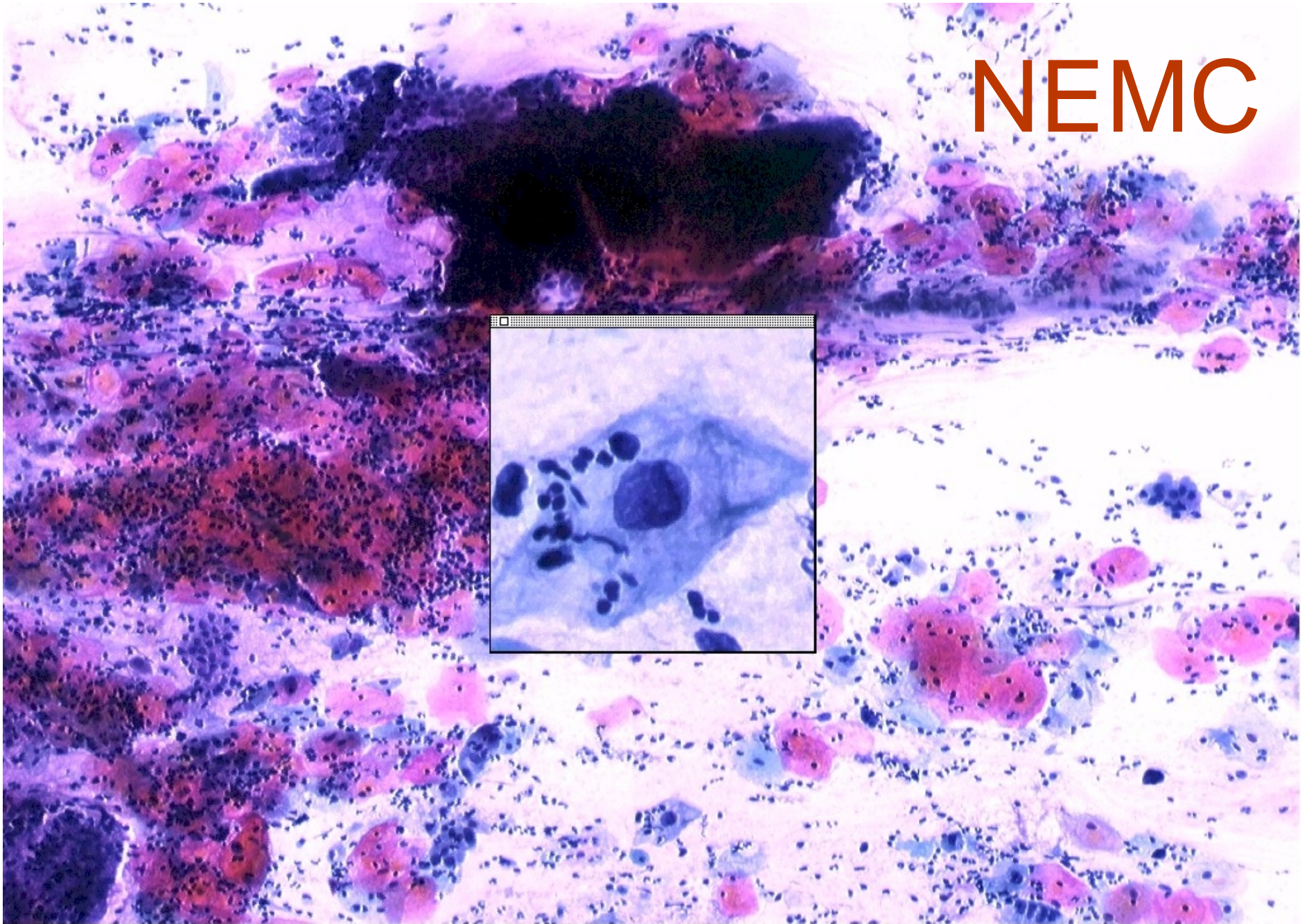
☐ Item 1

Previous

Next

ASCP

NEMC



Stop

Go to previous screen

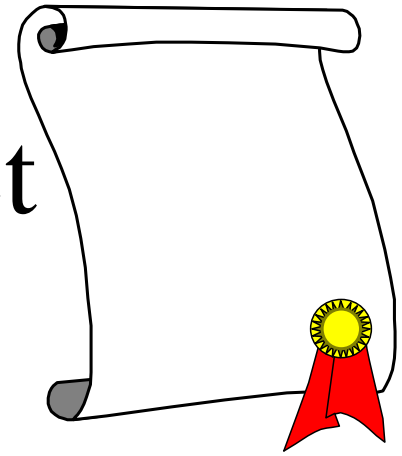
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Contract

Analytical Sciences, Inc..

- awarded January 1995
- completed July 1997

Purpose of Contract



- compare glass slide PT and computer-based PT to recent work performance
- uses a rescreen of 500 slides for comparison

Contract Protocol

National sample

- 85 study participants
- randomly chosen
- results available pending publication

CDC Prototype Computer PT

Developed using suggestions from the cooperative agreement

- test locator skills
- view high and low magnifications of all cells
- improve navigational tools for viewing image
- high resolution with true color
- control of focal planes
- verification of answers before submission

Demo of Computer PT Program